AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for generating a digital signal representative of the pairing error between the channels of an analog digital conversion system with time interleaving ~~(Can 10)~~ comprising an analog digital converter ~~(CAN_1, CAN_2,...,CAN_N)~~ on each channel, ~~characterized in that it comprises~~ said method comprising the determination of the spectrum of said digital signal [[(11-12]]] as a function of the frequency response of the analog digital conversion system with time interleaving [[(CAN 10)]] to at least one analog calibration signal [[(IC)]].

2. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~the preceding claim, characterized in that~~ claim 2, wherein it comprises the generation of a "comb" signal whose spectrum is composed of frequency lines kFs/N [[(11)]], where Fs is the sampling frequency and N the number of channels of the analog digital conversion system with time interleaving [[(CAN10)]] and the amplitude [[(12)]] dependent on the frequency response of the analog digital converter.

3. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~the preceding claim, characterized in that~~ claim 2, wherein the amplitude is dependent on the offset voltages ΔV_k [[(21)]] determined on the basis of the frequency response of the analog digital converter.

4. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~one of claims 2 or 3, characterized in that~~ claim 2, wherein it comprises the amplitude modulation of the "comb" signal [[(12)]] by the input signal [[(E_A)]] digitized by the conversion system [[(CAN 10)]] so that the modulation transforms the spectrum of the "comb" signal as a function of the frequency response of the analog digital converter.

5. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~the preceding claim characterized in that~~ claim 4, wherein the

amplitude is dependent on the deviations in gain ΔG_k [[(22)]]] determined on the basis of the frequency response of the analog digital converter.

6. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~one of claims 2 to 5, characterized in that~~ claim 2, wherein it comprises the amplitude modulation of the "comb" signal by the derivative s'(n) of the input signal digitized by the conversion system so that the modulation [[(12)]] transforms the spectrum of the "comb" signal as a function of the frequency response of the analog digital converter.

7. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~the preceding claim, characterized in that~~ claim 6, wherein the amplitude is dependent on the sampling clock temporal deviations Δt_k [[(23)]] determined on the basis of the frequency response of the analog digital converter.

8. (currently amended) The method for generating a digital signal representative of the pairing error as claimed in ~~one of claims 2 to 7, characterized in that~~ claim 2, wherein it comprises the amplitude modulation [[(12)]] of the "comb" signal by the result $e_2(n)$ of the high-pass filtering of the input signal digitized by the conversion system so that the modulation transforms the spectrum of the "comb" signal as a function of the frequency response of the analog digital converter.

9. (currently amended) The method for generating a digital signal representative of the pairing error as claimed ~~the preceding claim, characterized in that~~ in claim 8, wherein the amplitude is dependent on the passband errors $\Delta\omega_k$ [[(24)]] determined on the basis of the frequency response of the analog digital converter.

10. (currently amended) A method for suppressing the pairing errors between the channels of an analog digital converter [[(CAN 10)]], ~~characterized in that it comprises~~ said method comprising the generation of a digital signal [[(11-12)]] representative of the pairing error between the channels of an analog digital converter as claimed in ~~any one of claims 1 to 9~~ claim 1 and the subtraction [[(13)]] from the signal at the output of the analog digital converter of said generated digital signal.

11. (currently amended) An analog digital conversion system with time interleaving of sampling frequency Fs comprising N analog digital converters ~~($CAN_1, CAN_2, \ldots, CAN_N$)~~ driven by a sampling clock [[(H_e)]] of frequency Fs/N, ~~and characterized in that it~~ said system furthermore comprising :

[[-]] means for generating a digital signal representative of the pairing error [[(11-12)]] as claimed in claim 1 ~~any one of claims 1 to 9~~ driven by said clock [[(H_e)]] of frequency Fs;

[[-]] means of subtraction [[(13)]] from the output signal of said analog digital converter of the digital signal generated by said generation means.

12. (currently amended) The analog digital conversion system with time interleaving as claimed in ~~the preceding claim, characterized in that~~ claim 11, wherein the generation means [[comprise]] comprises:

[[-]] a device for generating a "comb" signal [[(11)]] driven by said clock [[(H_e)]] of frequency Fs;

[[-]] an amplitude modulation device [[(12)]] connected to the output of said device for generating a "comb" signal [[(11)]] receiving calibration information [[(IC)]] determined as a function of said frequency response.